

February 4, 2002

Mr. Steve Yoder
Wieland Designs, Incorporated
901 East Madison Street, Suite A
Goshen, Indiana 46526-3500

Re: 039-14892
Minor Source Modification to:
Part 70 permit No.: T039-7692-00258

Dear Mr. Yoder:

Wieland Designs, Incorporated was issued Part 70 operating permit T039-7692-00258 on September 30, 1998 for a stationary source that manufacture automobile, medical and airline seating. An application to modify the source was received on October 3, 2001. Pursuant to 326 IAC 2-7-10.5 the following emission units are approved for operational change and construction at the source:

- (a) Construction of one (1) new Latex Spray Booth, identified as EU-02 capable of painting a maximum of 6.25 wood frames per hour, equipped with High Volume Low Pressure (HVLP) paint applicator and venting through stack S-B. The PM overspray from this booth is controlled by dry filters; and
- (b) Increase in the adhesive usage at the existing three (3) Adhesive Glue Spray Booths, identified as EU-01A; and five (5) Adhesive Glue Spray Booths identified as EU-01B due to product mix change and customer demands and have a maximum capacity of 16.07 units per hour. These booths are used in gluing fabric parts to foam inserts. The three Adhesive Glue Spray Booths, EU-01A vent through stacks S-A1, S-A2 and S-A3 and are equipped with air spray application system and HVLP. The five (5) Adhesive Glue Spray Booths identified as EU-01B vents inside the building, identified as GV. The PM overspray from these booths is controlled by dry filters.

The following construction conditions are applicable to the proposed project:

General Construction Conditions

- 1. The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).
- 2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.
- 3. Effective Date of the Permit
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

4. Pursuant to 326 IAC 2-1.1-9 and 326 IAC 2-7-10.5(i), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.
5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.
6. Pursuant to 326 IAC 2-7-10.5(l) the emission units constructed under this approval shall not be placed into operation prior to revision of the source's Part 70 Operating Permit to incorporate the required operation conditions.

The source may begin construction and operation when the minor source modification has been issued. Operating conditions shall be incorporated into the Part 70 operating permit as a minor permit modification in accordance with 326 IAC 2-7-10.5(l)(2) and 326 IAC 2-7-12.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter call (800) 451-6027, press 0 and ask for Aida De Guzman or extension (3-4972), or dial (317) 233-4972.

Sincerely,

Original signed by Paul Dubenetzky
Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

Attachments

APD

cc: File - Elkhart County
Elkhart County Health Department
Northern Regional Office
Air Compliance Section Inspector - Tony Pelath
Compliance Data Section - Karen Nowak
Administrative and Development - Janet Mobley
Technical Support and Modeling - Michele Boner

PART 70 MINOR SOURCE MODIFICATION PERMIT OFFICE OF AIR QUALITY

**Wieland Designs, Incorporated
901 East Madison Street
Goshen, Indiana 46526-3500**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

First Minor Source Modification No.: 039-14892-00258	
Issued by: Original signed by Paul Dubenetzky Paul Dubenetzky, Branch Chief Permit Branch Office of Air Quality	Issuance Date: February 4, 2002

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Quarterly Report

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

- (a) Construction of one (1) new Latex Spray Booth, identified as EU-02 capable of painting a maximum of 6.25 wood frames per hour, equipped with High Volume Low Pressure (HVLP) paint applicator and venting through stack S-B. The PM overspray from this booth is controlled by dry filters; and
- (b) Increase in the adhesive usage at the existing three (3) Adhesive Glue Spray Booths, identified as EU-01A; and five (5) Adhesive Glue Spray Booths identified as EU-01B due to product mix change and customer demands and have a maximum capacity of 16.07 units per hour. These booths are used in gluing fabric parts to foam inserts. The three Adhesive Glue Spray Booths, EU-01A vent through stacks S-A1, S-A2 and S-A3 and are equipped with air spray application system and HVLP. The five (5) Adhesive Glue Spray Booths identified as EU-01B vents inside the building, identified as GV. The PM overspray from these booths is controlled by dry filters.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.1.1 Volatile Organic Compounds (VOC) [326 IAC 8-2-12]

Pursuant to 326 IAC 8-2-12 (Wood Furniture and Cabinet Coating), the surface coating applied to the seating's wood components applied in the new Latex Spray Booth, EU-02 shall utilize one of the following application methods:

Airless Spray Application
Air Assisted Airless Spray Application
Electrostatic Spray Application
Electrostatic Bell or Disc Application
Heated Airless Spray Application
Roller Coating
Brush or Wipe Application
Dip-and-Drain Application

High Volume Low Pressure (HVLP) Spray Application is an accepted alternative method of application for Air Assisted Airless Spray Application. HVLP spray is the technology used to apply coating to substrate by means of coating application equipment which operates between one-tenth (0.1) and ten (10) pounds per square inch gauge (psig) air pressure measured dynamically at the center of the air cap and at the air horns of the spray system.

D.1.2 Volatile Organic compounds (VOC) Input Limit [326 IAC 2-7-10.5(d)(5)] and [326 IAC 8-1-6]

The total VOC input usage to the eight (8) Adhesive Spray Booths (EU-01A and EU-01B) and the Latex Spray Booth EU-02 shall be limited to less than 25 tons per twelve (12) consecutive month period, rolled on a monthly basis. Compliance with this limit by the eight (8) Adhesive Spray Booths (EU-01A and EU-01B), and the Latex Spray Booth EU-02 shall make 326 IAC 2-7-10.5(f) (Part 70 Significant Source Modification) not applicable, and shall also make 326 IAC 8-1-6 (General Reduction Requirements) not applicable for the eight (8) Adhesive Spray Booths (EU-

01A and EU-01B) only.

D.1.3 Particulate Matter (PM) [326 IAC 6-3-2]

- (a) Pursuant to 326 IAC 6-3-2, the PM overspray emissions from the new Latex Spray Booth, identified as EU-02, shall be limited using the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

- (b) Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the three (3) Adhesive Glue Spray Booths, identified as EU-01A, shall not exceed 1.4 pounds per hour when operating at a process weight rate of 401.8 pounds per hour.
- (c) Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the (5) Adhesive Glue Spray Booths identified as EU-01B, shall not exceed 0.99 pound per hour when operating at a process weight rate of 241.09 pounds per hour.

The pounds per hour limitation shall be calculated using the following equation:

Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

D.1.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility, EU-02 and any control devices.

Compliance Determination Requirements

D.1.5 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

The Permittee is not required by this permit to perform compliance tests on these facilities. However, the Commissioner reserves the right to invoke its authority under 26 IAC 2-1.1-11 to require stack testing at any time to assure compliance with all applicable requirements. If testing will be required testing shall be conducted in accordance with Section C- Performance Testing.

D.1.6 Volatile Organic Compounds (VOC)

Compliance with the VOC content and usage limitations contained in Conditions D.1.2 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the coating manufacturer.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.1.7 Particulate Matter (PM)

The dry filters for particulate matter overspray control shall be properly in place and maintained to ensure integrity and particulate loading of the filters at all times when the eight (8) Adhesive Spray Booths (EU-01A and EU-01B) and the Latex Spray Booth EU-02 are in operation.

D.1.8 Operator Training Program

The eight (8) Adhesive Spray Booths (EU-01A and EU-01B) and the new Latex Spray Booth EU-02 shall comply with the following:

- (a) Wieland Designs, Incorporated shall implement the following operator-training program.
 - (1) All operators that perform the adhesive and surface coating operations, shall be trained in the proper set-up and operation of the particulate control system. All existing operators shall be trained within 60 days of the date of the permit issuance. All new operators shall be trained upon hiring or transfer.
 - (2) Training shall include proper filter alignment, filter inspection and maintenance, and trouble shooting practices. The training program shall be written and retained on site. The training program shall include a description of the methods to be used at the completion of initial and refresher training to demonstrate and document successful completion. Copies of the training program, the list of trained operators, and training records shall be maintained on site or available within one hour for inspection by IDEM.
 - (3) All operators shall be given refresher training annually.
- (b) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.
- (c) To document compliance with Condition D.1.3, Wieland Designs, Incorporated shall maintain a copy of the operator-training program, training records, and those additional inspections prescribed by the Preventive Maintenance Plan.

Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.1.9 Record Keeping Requirements

- (a) To document compliance with Conditions D.1.2 the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Conditions D.1.2.
 - (1) The amount and VOC content of each paint, adhesive material and clean-up solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.
 - (2) A log of the months of use;
 - (3) The cleanup solvent usage for each month;
 - (4) The total VOC usage for each month; and
 - (5) The weight of VOCs emitted for each compliance period.
- (b) To document compliance with Condition D.1.8, the Permittee shall maintain copies of the training program, the list of trained operators, and training records; and

- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.10 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.1.2 shall be submitted to the addresses listed in Section C - General Reporting Requirements, of the Part 70 permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

**Part 70 Minor Source Modification
Quarterly Report**

Source Name: Wieland Designs, Incorporated
Source Address: 901 East Madison Street, Suite A, Goshen, Indiana 46526
Mailing Address: 901 East Madison Street, Suite A, Goshen, Indiana 46526
Part 70 Permit No.: T039-7692-00258
Facility: Eight (8) Adhesive Spray Booths (EU-01A and EU-01B) and latex spray booth EU-02
Parameter: VOC
Limit: The VOC input usage to the eight (8) Adhesive Spray Booths (EU-01A and EU-01B) and latex spray booth EU-02 shall be limited to less than 25 tons per twelve (12) consecutive month period, rolled on a monthly basis to avoid 326 IAC 2-7-10.5(f) (Significant Source Modification). Compliance with this limit shall also make 326 IAC 8-1-6 (General Reduction Requirements) not applicable for the eight (8) Adhesive Spray Booths (EU-01A and EU-01B) only.

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for a Part 70 Minor Source Modification

Source Background and Description

Source Name:	Wieland Designs, Incorporated		
Source Location:	901 East Madison Street, Suite A, Goshen, IN		
County:	Elkhart		
SIC Code:	3714		
Operation Permit No.:	T 039-7692-00258	Issuance Date:	September 30, 1998
Minor Source Modification No.:	039-14892		
Permit Reviewer:	Aida De Guzman		

The Office of Air Quality (OAQ) has reviewed a modification application from Wieland Designs, Incorporated relating to the following emission units and pollution control devices used in the manufacture of the automobile, medical and airline seating, made out of fabric, wood and foam padding:

- (a) Construction of one (1) new Latex Spray Booth, identified as EU-02 capable of painting a maximum of 6.25 wood frames per hour, equipped with High Volume Low Pressure (HVLP) paint applicator and venting through stack S-B. The PM overspray from this booth is controlled by dry filters; and
- (b) Increase in the adhesive usage at the existing three (3) Adhesive Glue Spray Booths, identified as EU-01A; and five (5) Adhesive Glue Spray Booths identified as EU-01B due to product mix change and customer demands and have a maximum capacity of 16.07 units per hour. These booths are used in gluing fabric parts to foam inserts. The three Adhesive Glue Spray Booths, EU-01A vent through stacks S-A1, S-A2 and S-A3 and are equipped with air spray application system and HVLP. The five (5) Adhesive Glue Spray Booths identified as EU-01B vents inside the building, identified as GV. The PM overspray from these booths are controlled by dry filters.

History

On October 3, 2001, Wieland Designs, Incorporated submitted an application to the OAQ requesting to add additional spray booth and for an operational change to their existing plant. Wieland Designs, Incorporated was issued a Part 70 permit on September 30, 1998.

Existing Approvals

The source has been issued the following permits:

- (a) Part 70 Permit No.: 039-7692-00258, issued on September 30, 1998;
- (b) First Administrative Amendment No.: 039-10286, issued on March 25, 1999; and

(c) First Significant Permit Modification No.: 039-10964, issued on September 15, 1999.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
S-B	New Latex Spray Booth, EU-02	30	2	7,000	ambient
S-A1	Adhesive Spray Booth	30	1.5	4,000	ambient
S-A2	Adhesive Spray Booth	30	1.5	4,000	ambient
S-A3	Adhesive Spray Booth	30	1.5	7,000	ambient

Recommendation

The staff recommends to the Commissioner that the Part 70 Minor Source Modification be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on October 3, 2001.

Emission Calculations

(a) Spray Booths Emissions:

- (1) New Latex Spray Booth: See Pages 1 and 2 TSD Appendix A for detailed emission calculations.
- (2) Eight (8) Existing Adhesive Glue Spray Booths: See Pages 1 and 2 TSD Appendix A for detailed emission calculations.

The source is a Part 70 source due to the single HAP emissions of 45 tons per year and 47.45 tons per year of combined HAPs from these eight (8) existing booths. A modification to increase the adhesive usage and product mixture change from the same eight spray booths will result in a reduction in their HAP emissions to 12.36 tons per year for a single HAP and a combined HAP emissions to 18.68 tons per year. Although, there is HAP reduction the source will remain a Part 70 source, since the single HAP is still greater than 10 tons per year.

SUMMARY OF EMISSIONS (TONS/YEAR)						
Pollutant	Eight Adhesive Spray Booths (EU-01A & EU-01B)		New Latex Spray Booth		TOTAL	
	Uncontrolled PTE	Controlled PTE	Uncontrolled PTE	Controlled PTE	Uncontrolled PTE	Controlled PTE
PM/PM10	6.65	0.665	4.50	0.45	11.15	1.11
VOC	26.55	26.55	3.53	3.53	30.08	30.08
Single HAP	12.36	12.36	0.49	0.49	12.36	12.36
Combined HAPs	18.19	18.19	0.49	0.49	18.68	18.68

Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 2000 Emission Inventory Report.

Pollutant	Actual Emissions (tons/year)
PM	0.0
PM-10	0.0
SO ₂	0.0
VOC	2.0
CO	0.0
NO _x	0.0
HAP (specify)	0.0

Potential To Emit of Modification

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA.”

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	11.15
PM-10	11.15
SO ₂	0.0
VOC	30.08
CO	0.0
NO _x	0.0

HAP's	Potential To Emit (tons/year)
MEK	12.38

Toluene	5.83
Diethylene Glycol Monomethyl (Glycol Ethers)	0.49
Worst Single HAP	12.38
Combined HAPs	18.68

Justification for Modification

Pursuant to 326 IAC 2-7-10.5(d)(5), the Part 70 Operating permit is being modified through a Part 70 Minor Source Modification, since the source modification uncontrolled/unlimited PTE for volatile organic compounds (VOC) is greater than 25 tons per year and the source is requesting a limit in the material usage to restrict the VOC emissions to less than twenty-five (25) tons per year.

County Attainment Status

The source is located in Elkhart County.

Pollutant	Status
PM-10	attainment
SO ₂	attainment
NO ₂	attainment
Ozone	maintenance
CO	attainment
Lead	not determined

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Elkhart County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) Elkhart County has been classified as attainment or unclassifiable for all the other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Source Status

Existing Source PSD Definition (based on the permit issued prior to the Part 70 issuance):

Pollutant	Registration CP 039-3723, issued on February 10, 1995 Emissions (tons/year)
PM	0.4
PM-10	0.0
SO ₂	0.0

VOC	22.74
CO	1.3
NOx	5.1

- (a) This existing source is not a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not one of the 28 listed source categories.

Potential to Emit of Modification After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Part 70 source modification.

	Potential to Emit (tons/year)							
Process/facility	PM	PM-10	SO ₂	VOC	CO	NO _x	Single HAP	Combined HAPs
Latex Spray Booth	0.45	0.45	0.0	0.0	0.0	0.0	0.49	0.49
Adhesive Spray Booths	0.665	0.665	0.0	< 25	0.0	0.0	18.19	18.19
TOTAL	1.11	1.11	0.0	< 25	0.0	0.0	18.68	18.68
PSD Threshold Levels	250.0	250.0	250.0	250.0	250.0	250.0	-	-

This modification to an existing minor stationary source is not major because the emission increase is less than the PSD threshold levels. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

Federal Rule Applicability

- (a) New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60):
There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this proposed modification.
- (b) National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63):
There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this proposed modification.

State Rule Applicability - Entire Source

- (a) 326 IAC 2-6 (Emission Reporting)
The source modification will make this source subject to 326 IAC 2-6 (Emission Reporting), because it is located in Elkhart County and has the potential to emit more than (ten (10) tons per year of volatile organic compounds (VOC). Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by April 15 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the

period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year).

- (b) 326 IAC 5-1 (Opacity Limitations)
Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:
 - (1) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
 - (2) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Individual Facilities

- (a) 326 IAC 8-2-11 (Fabric and Vinyl Coating)
This rule is not applicable to the fabric coating of glue in this modification because it does not involve saturating the fabric or textile substrate with a knife, roll, or rotogravure coater to impart properties that are not initially present in the fabric, i.e, strength, stability, water repellantcy, or appearance.
- (b) 326 IAC 8-2-12 (Surface Coating of Wood Furniture and Cabinets)
This rule is applicable to the new Latex Spray Booth, identified as EU-02, that will be used to coat seating wood components. Pursuant to this rule, the surface coatings applied to wood furniture and/or wood components shall utilize one or more of the following application methods:

Airless Spray Application	Air-Assisted Airless Spray Application
Electrostatic Spray Application	Electrostatic Bell or Disc Application
Heated Airless Spray Application	Roller Coating
Brush or Wipe Application	Dip-and-Drain Application
High Volume Low Pressure HVLP	Aerosol Spray Cans

High volume low pressure spray is an acceptable alternative application of air-assisted airless spray. High volume low pressure (HVLP) spray means technology used to apply coating to a substrate by means of coating application equipment which operates between one-tenth (0.1) and ten (10) pounds per square inch gauge (psig) air pressure measured dynamically at the center of the air cap and at the air horns of the spray system.

The source is in compliance with 326 IAC 8-2-12, as it is using HVLP in coating the seating wood components.

- (c) 326 IAC 8-1-6 (General Reduction Requirements) and 326 IAC 2-7-10.5(d)(5) (Minor Source Modification)
The eight (8) Adhesive Spray Booths (EU-01A and EU-1B) total VOC potential emissions are greater than 25 tons per year. Therefore, they are subject to 326 IAC 8-1-6. However for 326 IAC 2-7-10.5(d)(5), the whole modification (eight (8) Adhesive Spray Booths (EU-01A and EU-01B) and the new Latex Spray Booth) is limited to less than 25 tons per year to avoid a Significant Source Modification, thus also make 326 IAC 8-1-6 not applicable for the eight (8) Adhesive Spray Booths (EU-01A and EU-01B) only.

- (d) 326 IAC 6-3-2 (Process Operations)
(1) This rule mandates a PM emission limit on the new Latex Spray Booth, identified as EU-02 using the following equation:

Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

The source is in compliance with 326 IAC 6-3-2 using dry filters to control the PM overspray emissions.

- (2) This rule mandates a PM emission limit on the three (3) Adhesive Glue Spray Booths, identified as EU-01A, and five (5) Adhesive Glue Spray Booths identified as EU-01B using the following equation:

Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour} \\ = 0.12015 \text{ ton/hr for 5 Adhesive Booths} \\ = 0.2009 \text{ ton/hr for the 3 Adhesive Booths}$$

Five (5) Adhesive Booths:

$$E = 4.10 (0.12015)^{0.67} \\ = 0.99 \text{ lb/hr} - \text{These booths are in compliance with 326 IAC 6-3-2, since} \\ \text{their PM potential emissions of 0.56 lb/hr is less than what is allowed by} \\ \text{the rule.}$$

Three (3) Adhesive Booths:

$$E = 4.10 (0.2009)^{0.67} \\ = 1.4 \text{ lb/hr} - \text{These booths are in compliance with 326 IAC 6-3-2, since} \\ \text{their PM potential emissions of 0.95 lb/hr is less than what is allowed by} \\ \text{the rule.}$$

- (e) 326 IAC 2-4.1-1 (New Source Toxics Control)
(1) Although the single HAP emissions from the eight (8) Adhesive Spray Booths (EU-01A and EU-01B) are greater than 10 tons per year (major levels), they are not subject to this rule because they were constructed in 1995 which predates the applicability date (July 27, 1997) of this rule.
(2) The new Latex Spray Booth is not subject to 326 IAC 2-4.1-1, because it is a modification of the source.

Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a

result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

All surface coating operations are subject to the compliance monitoring requirements. The PM allowable emission is not a factor in the requirement. The compliance monitoring requirements applicable to this modification are as follows:

1. The eight (8) Adhesive Spray Booths (EU-01A and EU-01B) and the new Latex Spray Booth EU-02 shall comply with the following:
 - (a) In lieu of the dry filters compliance monitoring the source has accepted the following alternative program:
 - (1) The dry filters for particulate matter overspray control shall be properly in place and maintained to ensure integrity and particulate loading of the filters at all times when the eight (8) Adhesive Spray Booths (EU-01A and EU-01B) and the Latex Spray Booth EU-02 are in operation.
 - (c) Wieland Designs, Incorporated shall implement the following operator-training program.
 - (1) All operators that perform the adhesive and paint spray operations, shall be trained in the proper set-up and operation of the particulate control system. All existing operators shall be trained within 60 days of the date of the permit issuance. All new operators shall be trained upon hiring or transfer.
 - (2) Training shall include proper filter alignment, filter inspection and maintenance, and trouble shooting practices. The training program shall be written and retained on site. The training program shall include a description of the methods to be used at the completion of initial and refresher training to demonstrate and document successful completion. Copies of the training program, the list of trained operators, and training records shall be maintained on site or available within one hour for inspection by IDEM.
 - (3) All operators shall be given refresher training annually.
 - (d) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.
 - (e) To document compliance with the Condition in D.1.3 of the Minor Source Modification, Wieland Designs, Incorporated shall maintain a copy of the operator-training program, training records, and those additional inspections

prescribed by the Preventive Maintenance Plan.

- (f) The VOC input usage limits from the (8) adhesive spray booths and one (1) latex spray booth shall be monitored, recorded and reported, to avoid 326 IAC 2-7-10.5(f), Significant Source Modification.

Conclusion

The construction of this proposed modification shall be subject to the conditions of the attached **Part 70 Minor Source Modification No. 039-14892-00258.**

**Appendix A: Emissions Calculations
VOC and Particulate
From Surface Coating Operations**

Page 1 of 2 TSD App A

Company Name: Wieland Designs, Incorporated
Address City IN Zip: 901 East Madison Street, Suite A, Goshen, IN 46526
Minor Source Modification No.: 039-14892-00258
Reviewer: Aida De Guzman
Date Application Received: October 3, 2001

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
Five Adhesive Spray Booths (EU-01B)																
2 Part White (WB-1100)	9.2	50.00%	40.0%	10.0%	44.0%	0.00%	0.02900	16.073	1.64	0.92	0.43	10.25	1.87	2.34	ERR	75%
Clear Activator (ACT5493)	9.2	85.00%	85.0%	0.0%	0.0%	0.00%	0.00500	16.073	0.00	0.00	0.00	0.00	0.00	0.12	ERR	75%
Three Adhesive Spray Booths (EU-01A)																
Premium Adhesive (7113)	6.8	71.30%	35.0%	36.3%	36.3%	0.00%	0.05000	16.073	3.89	2.48	1.99	47.82	8.73	1.73	ERR	75%
Premium Adhesive (7330)	6.9	70.00%	25.0%	45.0%	26.2%	0.00%	0.06700	16.073	4.22	3.11	3.35	80.41	14.68	2.45	ERR	75%
MEK	6.8	100.00%	0.0%	100.0%	0.0%	0.00%	0.00200	16.073	6.75	6.75	0.22	5.21	0.95	0.00	ERR	75%
Touch-up Area (General Ventilation)																
Sprayaway Foam & Fabric Adhesive	5.8	82.00%	5.0%	77.0%	0.0%	0.00%	0.00100	16.073	4.48	4.48	0.07	1.73	0.32	0.02	ERR	75%
New Latex Spray Booth (EU-02)																
Black Water Base Paint	12.5	38.09%	26.0%	12.1%	0.0%	0.00%	0.08500	6.250	1.52	1.52	0.81	19.33	3.53	4.50	ERR	75%

State Potential Emissions	Add worst case coating to all solvents	164.75	30.08	9.41
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Note: There are 3 adhesives applicators in the three spray booths. Therefore, emissions from both adhesives used at those booths will be added.

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)

Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)

Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)

Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)

Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)

Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)

Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)

Total = Worst Coating + Sum of all solvents used

Company Name: Wieland Designs, Incorporated
Address City IN Zip: 901 East Madison Street, Suite A, Goshen, IN 46526
Minor Source Modification No.: 039-14892-00258
Permit Reviewer: Aida De Guzman
Date: October 3, 20

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % MEK	Weight % Toluene	Wt % Diethylene Glycol Monomethyl Ether	MEK Emissions (ton/yr)	Toluene Emissions (ton/yr)	Diethylene Glycol Monomethyl Ether Emissions (ton/yr)
Five Adhesive Spray Booths (EU-01B)									
2 Part White (WB-1100)	9.2	0.02900	16.073	0.00%	5.00%	0.00%	0.00	0.94	0.00
Clear Activator (ACT5493)	9.2	0.00500	16.073	0.00%	0.00%	0.00%	0.00	0.00	0.00
Three Adhesive Spray Booths (EU-01A)									
Premium Adhesive (7113)	6.8	0.05000	16.073	0.00%	0.00%	0.00%	0.00	0.00	0.00
Premium Adhesive (7330)	6.9	0.06700	16.073	35.00%	15.00%	0.00%	11.41	4.89	0.00
MEK	6.8	0.00200	16.073	100.00%	0.00%	0.00%	0.95	0.00	0.00
Touch-up Area (General Ventilation)									
Sprayaway Foam & Fabric Adhesive	5.8	0.00100	16.073	0.00%	0.00%	0.00%	0.00	0.00	0.00
New Latex Spray Booth (EU-02)									
Black Water Base Paint	12.5	0.08500	6.250	0.00%	0.00%	1.68%	0.00	0.00	0.49

Worst Single Potential Emissions

12.36

5.83

0.49

Combined HAPs Potential Emissions

18.68

METHODOLOGY

HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs